AMENDMENT NO. 1 OCTOBER 2022

TO

IS 16481 : 2022 TEXTILES — SYNTHETIC MICRO-FIBRES FOR USE IN CEMENT BASED MATRIX — SPECIFICATION

(First Revision)

(*Foreword*, *para* 3, *sentence* 4) — Delete.

(*Foreword*, *para* 3, *sentence* 5) — Delete the word ‘temperature’.

(*Foreword*, *para* 4) — Insert the following after the paragraph:

‘Therefore, use of synthetic fibres such as polyester, nylon and polypropylene in construction needs no emphasis.’

(*Foreword*, *para* 5, *sentence* 1) — Delete.

(*Foreword*, *para* 5, *sentence* 2) — Delete ‘reduced seepage of water’.

(*Foreword*, *para* 5, *sentence* 3) — Delete.

[*Page* 5, *Table* 1, *Sl No*. v) *col* (3), (4) and (5)] — Substitute ‘240°C’ *for* ‘250°C’.

[*Page* 5, *Table* 1, *Sl No*. vi) *col* (3), (4) and (5)] — Substitute ‘60°C’ *for* ‘80°C’.

(Page 17, *Annex* G) — Substitute the following for the existing:

‘ANNEX G

[*Sl No*. iii), Table 1]

DETERMINATION OF SPECIFIC GRAVITY

G-1 Take a specimen of weighing about 1 g of fibres from the sample and find out its mass (m) accurately to the nearest mg. Count the total number of fibres (n) in the test specimen.

G-2 Let l be the mean fibre length, in cm, correct to two decimal places as determined by the procedure described in IS 235 and d be the mean fibre diameter in cm, correct to two decimal places as determined in IS 6919.

Price Group 1

G-3 For circular cross-section fibres, calculate the specific gravity of the fibre by the formula:

$$\text{Specific gravity of the fibre} = \frac{4m}{\pi d^2 l n}$$

where

m = mass of specimen in mg;
l = length of fibre in cm;
d = mean fibre diameter in cm; and
n = total number of fibres.

G-4 For triangular cross-section fibres, calculate the specific gravity of the fibre by the formula:

$$\text{Specific gravity of the fibre} = \frac{m}{a \times \sin 60 \times a/2 \times l \times n} = \frac{m}{0.433\, a^2 \times l \times n}$$

Where

a = side of the equilateral triangle of cross-section of the fibre.

G-5 For rectangular cross-section fibres, calculate the specific gravity of the fibre by the formula:

$$\text{Specific gravity of the fibre} = \frac{m}{a \times b \times l \times n}$$

Where

a = longer side of the rectangle of cross-section of the fibre; and
b = shorter side of rectangle of cross-section of the fibre.'

(TXD 34)

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